

Homework 2

James Smutek, CMIS 141, Week 4

Default Constructor

Input

Parameter	Data Type	Value
numStrings	Integer	
guitarLength	Double	
guitarManufacturer	String	
guitarColor	String	

Output

Method Name	Expected Output	Actual Output	Pass/Fail
getNumStrings()	6	6	Pass
getGuitarLength()	28.2	28.2	Pass
getGuitarManufacturer()	Gibson	Gibson	Pass
getGuitarColor()	Color.Red	Color.Red	Pass
playGuitar()	Random	[A(0.5), C(0.5), C(2.0), D(4.0), E(0.5), C(1.0), C(1.0), D(2.0), G(1.0), D(0.5), C(4.0), G(0.5), G(0.25), E(4.0), G(4.0), F(1.0), A(0.25)]	Pass
toString()	Guitar{numStrings=6, guitarLength=28.2, guitarManufacturer='Gibson', guitarColor='Color.Red'}	Guitar{numStrings=6, guitarLength=28.2, guitarManufacturer='Gibson', guitarColor='Color.Red'}	Pass

Test 1

Input

Parameter	Data Type	Value
numStrings	Integer	5
guitarLength	Double	26
guitarManufacturer	String	Ibanez
guitarColor	String	Color.White

Output

Method Name	Expected Output	Actual Output	Pass/Fail
getNumStrings()	5	5	Pass
getGuitarLength()	26.0	26.0	Pass
getGuitarManufacturer()	Ibanez	Ibanez	Pass
getGuitarColor()	Color.White	Color.White	Pass
playGuitar()	Random	[D(1.0), D(2.0), A(1.0), G(0.5), A(4.0), A(0.5), A(2.0), A(4.0), B(4.0), A(0.25), D(4.0), D(1.0), B(0.5), A(0.5), B(4.0), B(0.5), D(2.0)]	Pass
toString()	Guitar{numStrings=5, guitarLength=26.0, guitarManufacturer='Ibanez', guitarColor='Color.White'}	Guitar{numStrings=5, guitarLength=26.0, guitarManufacturer='Ibanez', guitarColor='Color.White'}	Pass

Test 2

Input

Parameter	Data Type	Value
numStrings	Integer	12
guitarLength	Double	25.4
guitarManufacturer	String	Rickenbacker
guitarColor	String	Color.Black

Output

Method Name	Expected Output	Actual Output	Pass/Fail
getNumStrings()	12	12	Pass
getGuitarLength()	25.4	25.4	Pass
getGuitarManufacturer()	Rickenbacker	Rickenbacker	Pass
getGuitarColor()	Color.Black	Color.Black	Pass
playGuitar()	Random	[B(4.0), A(4.0), B(0.25), D(0.5), D(0.25), D(0.5), B(1.0), C(0.25), C(0.25), C(2.0), A(0.5), A(0.25), F(0.5), D(0.5), A(1.0), F(0.25), B(2.0)]	Pass
toString()	Guitar{numStrings=12, guitarLength=25.4, guitarManufacturer='Rickenbacker', guitarColor='Color.Black'}	Guitar{numStrings=12, guitarLength=25.4, guitarManufacturer='Rickenbacker', guitarColor='Color.Black'}	Pass

Test 3

Input

Parameter	Data Type	Value
numStrings	Integer	21
guitarLength	Double	42
guitarManufacturer	String	Maharaja
guitarColor	String	Color.Blue

Output

Method Name	Expected Output	Actual Output	Pass/Fail
getNumStrings()	12	12	Pass
getGuitarLength()	42.0	42.0	Pass
getGuitarManufacturer()	Majaraja	Maharaja	Pass
getGuitarColor()	Color.Blue	Color.Blue	Pass
playGuitar()	Random	[B(1.0), F(1.0), B(2.0), F(0.5), F(4.0), C(4.0), D(0.5), D(0.5), C(0.25), A(0.25), B(0.25), G(4.0), B(1.0), D(4.0), E(0.5), B(0.5), D(0.25)]	Pass
toString()	Guitar{numStrings=21, guitarLength=42.0, guitarManufacturer='Maharaja', guitarColor='Color.Blue'}	Guitar{numStrings=21, guitarLength=42.0, guitarManufacturer='Maharaja', guitarColor='Color.Blue'}	Pass

Program Execution

Compiling and running of the program.

```
src b2201d2 → △ → javac Guitar.java && javac TestGuitar.java
src b2201d2 → △ → java TestGuitar
*****
TEST CASE: Default
*****
Method: getNumStrings()
Output: 6

Method: getGuitarLength()
Output: 28.2

Method: getGuitarManufacturer()
Output: Gibson

Method: getGuitarColor()
Output: Color.Red

Method: playGuitar()
Output: [D(4.0), G(4.0), G(1.0), C(2.0), G(1.0), A(4.0), E(2.0), E(2.0), A(0.5), G(2.0), B(1.0), D(4.0), B(0.25), C(0.25), E(1.0), F(0.5), D(4.0)]

Method: toString()
Output: Guitar{numStrings=6, guitarLength=28.2, guitarManufacturer='Gibson', guitarColor='Color.Red'}

*****
TEST CASE: 1
*****
Method: getNumStrings()
Output: 5

Method: getGuitarLength()
Output: 26.0

Method: getGuitarManufacturer()
Output: Ibanez

Method: getGuitarColor()
Output: Color.White

Method: playGuitar()
Output: [D(2.0), B(1.0), C(4.0), B(2.0), B(0.25), D(0.25), D(2.0), E(2.0), C(4.0), F(1.0), F(4.0), E(2.0), C(4.0), D(4.0), F(0.5), B(1.0), D(0.5)]

Method: toString()
Output: Guitar{numStrings=5, guitarLength=26.0, guitarManufacturer='Ibanez', guitarColor='Color.White'}

*****
TEST CASE: 2
*****
Method: getNumStrings()
Output: 12

Method: getGuitarLength()
Output: 25.4

Method: getGuitarManufacturer()
Output: Rickenbacker

Method: getGuitarColor()
Output: Color.Black

Method: playGuitar()
Output: [F(0.5), B(1.0), D(0.5), E(4.0), G(0.5), B(1.0), G(4.0), C(0.25), E(4.0), G(2.0), E(1.0), F(0.25), B(0.25), B(0.5), E(0.25), F(4.0), C(0.25)]

Method: toString()
Output: Guitar{numStrings=12, guitarLength=25.4, guitarManufacturer='Rickenbacker', guitarColor='Color.Black'}

*****
TEST CASE: 3
*****
Method: getNumStrings()
Output: 21

Method: getGuitarLength()
Output: 42.0

Method: getGuitarManufacturer()
Output: Maharaaja

Method: getGuitarColor()
Output: Color.Blue

Method: playGuitar()
Output: [G(2.0), B(0.5), D(0.5), E(0.25), D(1.0), E(2.0), B(1.0), A(4.0), D(0.25), A(0.25), E(0.5), C(1.0), A(1.0), G(1.0), F(4.0), F(0.25), E(0.25)]

Method: toString()
Output: Guitar{numStrings=21, guitarLength=42.0, guitarManufacturer='Maharaaja', guitarColor='Color.Blue'}

src b2201d2 → △ →
```

master x 18h25m
master x 18h26m

master x 18h26m